CLAIMS

1. A purification system for wastewater from fruit- and vegetable-processing plants and from phytosanitary treatments, the system comprising

a filter tank (1,15) where a pretreatment step is carried out;

a tank (6,7) for collecting clarified water resulting from the pretreatment step, said tank (6,7) comprising a stirrer (3) for uniformly mixing the clarified water;

pumping means (11) for pumping mixed clarified water from said tank (6,7) to a first active carbon column (9) of an array of active carbon columns (9) being prepared for purifying the mixed clarified water by adsorption up to established threshold values;

said first active carbon column (9) being connected by an outlet to an inlet of a subsequent active carbon column (9), each further subsequent active carbon column (9) being connected by its inlet to the outlet of the preceding active carbon column (9); and

automatic control means for providing that mixed clarified water is retained in each carbon column (9) for at least two hours.

2. A purification equipment according to claim 1, characterised in that the tank-filter (1) is a settling tank with at least two outlets for the clarified water, to which flocculent can be added, the sludge being extracted by gravity through the lower part thereof and sent to a filtering bag (5) where it is retained, while the clarified water is sent to an intermediate tank (7), being joined to this the water which passes through said filtering bag (5) and is received in a collection tank (6).

3. A purification equipment according to claim 2, characterised in that the filtering bag (5) is arranged inside a metal frame (4) which acts as a support for it and as a collector for the water passing through it on its way to the reception tank (6).

4. A purification equipment according to claim 1, characterised in that the tank-filter (15) is a polypropylene bag filter that includes diatomaceous earth, with circulation being maintained in closed circuit from the tank (6) containing water, the bags being filled with a pre-layer of this earth; a pump (11a) sucking the liquid to be purified and which passes through that filter (15) to the reception tank (6), from where it is decanted to the array of columns 9 of activated carbon.

5. A purification equipment according to any of the preceding claims, characterised in that at the outlet from the array of columns 9 of activated carbon is included an ultraviolet lamp (13) for optimising the purification.

6. A purification equipment for wastewater coming from fruit and vegetable processing plants and phytosanitary treatments in the field, according to any of the above claims, characterised in that the array of columns 9 of activated carbon, three in number, are mounted on a rotating plate (17) where there exists a fourth bottle (9) in reserve, which replaces number three when the first one becomes clogged up and is withdrawn and replaced by the second, with the third taking over in the second place.